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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/809,939

03/25/2004

Christopher L. Hamlin

04-0175

6407

24319

7590

01/10/2006

LSI LOGIC CORPORATION

1621 BARBER LANE

MS: D-106

MILPITAS, CA 95035

EXAMINER

DOAN, NGHIA M

ART UNIT

PAPER NUMBER

2825

DATE MAILED: 01/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/809,939	Applicant(s) HAMLIN, CHRISTOPHER L.	
	Examiner Nghia M. Doan	Art Unit 2825	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03/25/2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 March 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>07/19/2004</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Responsive to communication application 10/809,939 filed on 03/25/2004, claims 1-21 are pending.

Claim Objections

2. Claims 1, 8, and 15 are objected to because of the following informalities:

As to claims 1, 8, and 15 recite limitations that "abstracting set of transistor into abstract resources" and "sea-of-platform". These limitations are not clear defined in the application specification. It needs to clarify.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 1, 6-8, 13-15 and 20-21 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

As to claims 1, 8, and 15 recite the terms "flexible", and "malleable", which are not clearly defined in the specification.

As claims 6-7, 13-14, and 20-21, the limitation that "broken symmetry", which are not clearly describing in the specification.

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5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 1, 5, 8, 12, 15, and 19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

7. The terms “flexible”, and “malleable” in claims 1, 8, and 15 are relative terms, which render the claims indefinite. The terms “flexible”, and “malleable” are not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

As to claims 5, 12, and 19, Where applicant acts as his or her own lexicographer to specifically define a term of a claim contrary to its ordinary meaning, the written description must clearly redefine the claim term and set forth the uncommon definition so as to put one reasonably skilled in the art on notice that the applicant intended to so redefine that claim term. *Process Control Corp. v. HydReclaim Corp.*, 190 F.3d 1350, 1357, 52 USPQ2d 1029, 1033 (Fed. Cir. 1999). The term “plesiochronous” in claims 5, 12 and 10 are used by the claim to mean “synchronous with the external clock signal”, while the accepted meaning is “transmit signals internally across net”. The term is indefinite because the specification does not clearly redefine the term.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

9. Claims 1-21 are rejected under 35 U.S.C. 102(e) as being anticipated by Carruthers et al. (US 6,370,677).

10. **With respect to claims 1, 8, and 15**, Carruthers discloses a method, system and computer-readable medium for optimally mapping a general set of resources to a specific integrated circuit design (Abstract), comprising steps of:

abstracting sets of transistors into abstracted resources, said abstracted resources including at least one of a transformative (translating) resource (Abstract), a coordinating resource, and a state management resource (col. 6, ll. 31-53 – translating a netlist (such as logic gates, transistors or group of gates) into a configuration memory bit stream (data) used to enable an FPGA to perform the circuit design function in physical hardware --); and

utilizing a sea-of-platforms (FPGA architecture) (col. 7, ll. 49-58 and col. 8, ll. 35-47) for unifying a flexible and malleable collection of said abstracted resources in such a way as to optimize said abstracted resources for a specific integrated circuit design (col. 6, ll. 42-48, -- used the logic resource available in

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the FPGA architecture and the routing resource to connect together the logic sources in order to create a desired circuit --).

11. **With respect to claims 2, 9, and 16**, Carruthers discloses all the limitations as the forth set of claims, wherein said transformative resource includes conversion and translation of data (col. 6, ll. 35-40 and col. 12, ll. 1-4).

12. **With respect to claims 3, 10, and 17**, Carruthers discloses all the limitations as the forth set of claims, wherein said coordinating resource includes timing (delay or skew) (col. 9, ll. 4-29).

13. **With respect to claims 4, 11, and 18**, Carruthers discloses all the limitations as the forth set of claims, wherein said state management resource includes control of non-volatile storage structures (RAM, EEPROM or otherwise programmable device) (col. 11, ll. 20-34).

14. **With respect to claims 5, 12, and 19**, Carruthers discloses all the limitations as the forth set of claims, wherein said utilizing step comprises implementing a plesiochronous signaling (transmit signals internally across net) discipline in said sea-of-platforms (col. 7, ll. 49-58).

15. **With respect to claims 6, 13, and 20**, Carruthers discloses all the limitations as the forth set of claims, wherein said utilizing step comprises using broken symmetry (divided or partitioned) to optimize said abstracted resources for said specific integrated circuit design (col. 1, ll. 64-67, col. 2, ll. 25-35, and col. 6, ll. 54-67 and col. 7, ll. 1-37).

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16. **With respect to claims 7, 14, and 21**, Carruthers discloses all the limitations as the forth set of claims, wherein said broken symmetry is a code space (structure description of define cell) (col. 8, ll. 4-11).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nghia M. Doan whose telephone number is 571-272-5973. The examiner can normally be reached on 8:30-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jack Chiang can be reached on 571-272-7483. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Nghia M. Doan
Patent Examiner
AU 2825
NMD

